General

Guideline Title

Screening for oral cancer: U.S. Preventive Services Task Force recommendation statement.

Bibliographic Source(s)

U.S. Preventive Services Task Force (USPSTF). Screening for oral cancer: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med. 2014 Jan 7;160(1):55-60. [17 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: U.S. Preventive Services Task Force (USPSTF). Screening for oral cancer: recommendation statement. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2004 Feb. 4 p.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

The U.S. Preventive Services Task Force (USPSTF) grades its recommendations (A, B, C, D, or I) and identifies the levels of certainty regarding net benefit (High, Moderate, and Low). The definitions of these grades can be found at the end of the "Major Recommendations" field.

Summary of Recommendations and Evidence

The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for oral cancer in asymptomatic adults. (I statement)

Clinical Considerations

Patient Population Under Consideration

This recommendation applies to asymptomatic adults aged 18 years or older who are seen by primary care providers. This recommendation focuses on screening (visual inspection and palpation) of the oral cavity performed by primary care providers and not dental providers or otolaryngologists.

Assessment of Risk

Tobacco and alcohol use are major risk factors for oral cancer. A total of 20% to 30% of cases of oral cancer worldwide are attributable to cigarette smoking. In the United States, up to 75% of cases of oral cancer may be attributable to tobacco and alcohol use. Additional risk factors include male sex, older age, use of betel quid, ultraviolet light exposure, infection with Candida or bacterial flora, and a compromised immune system.

Sexually transmitted oral human papillomavirus-16 infection (HPV-16) has recently been recognized as an increasingly important risk factor for oropharyngeal cancer. In the United States, the prevalence of oropharyngeal cancer due to oral HPV infection is probably as high as 80% to 95%. The prevalence of oral HPV infection is associated with age, sex, number of sexual partners, and number of cigarettes smoked per day. The effect of multifactorial risk assessment and screening for risk factors on oral cancer morbidity and mortality is unknown.

Screening Tests

The primary screening test for oral cancer is a systematic clinical examination of the oral cavity. According to the World Health Organization and the National Institute of Dental and Craniofacial Research, an oral cancer screening examination should include a visual inspection of the face, neck, lips, labial mucosa, buccal mucosa, gingiva, floor of the mouth, tongue, and palate. Mouth mirrors can help visualize all surfaces. The examination also includes palpating the regional lymph nodes, tongue, and floor of the mouth. Any abnormality that lasts for more than 2 weeks should be reevaluated and considered for biopsy.

Oropharyngeal cancer is difficult to visualize and is usually located at the base of the tongue (the back third of the tongue), the soft palate (the back part of the roof of the mouth), the tonsils, and the side and back walls of the throat. A comprehensive examination of the oropharynx may require referral to a dental provider or specialist, which is outside the scope of this recommendation.

Additional tests proposed as adjuncts to the oral cancer screening examination include toluidine blue dye staining, chemiluminescent and autofluorescent lighting devices, and brush cytopathology. These screening and adjunct tests have not been adequately tested in primary care non dental settings. Although there is interest in screening for oral HPV infection, medical and dental organizations do not recommend it. Currently, no screening test for oral HPV infection has been approved by the U.S. Food and Drug Administration (FDA). Evaluating the accuracy of tests that detect oral HPV infection is a potentially promising area of research.

Suggestions for Practice Regarding the I Statement

This recommendation is intended for primary care providers and does not pertain to dental providers or otolaryngologists. Dental care providers and otolaryngologists may conduct a comprehensive examination of the oral cavity and pharynx during the clinical encounter. In deciding whether to screen for oral cancer, primary care providers should consider the following factors.

Potential Preventable Burden

Up to 75% of cases of oral cancer may be attributed to tobacco and alcohol use. Since 1979, the incidence rate of oral cavity cancer in the United States has been decreasing because of the reduced consumption of alcohol and smoking prevalence.

During this period, the incidence of HPV-positive oropharyngeal squamous cell carcinoma has increased. Cancer registry data have shown that from 1988 to 2004, HPV-negative oropharyngeal cancer has decreased from 2.0 cases to 1.0 case per 100,000 persons and HPV positive oropharyngeal cancer has increased more than 3-fold from 0.8 case to 2.6 cases per 100,000 persons. The overall prevalence of oral HPV infection is estimated to be 6.9% in adults aged 14 to 69 years in the United States. However, HPV prevalence can be as high as 20% for persons who have more than 20 lifetime sexual partners or currently use tobacco (more than 1 pack of cigarettes per day).

The prevalence of type-specific HPV-16 oral infection is estimated at 1% in adults aged 14 to 69 years (an estimated 2.13 million infected persons). Human papillomavirus-16 is associated with approximately 85% to 95% of cases of HPV-positive oropharyngeal cancer. Therefore, the increasing role of oral HPV infection as a risk factor for oropharyngeal cancer may warrant future assessment of the independent effect of HPV-16 on incidence and outcomes of oropharyngeal cancer and the health effect of screening persons who are HPV-16–positive.

Potential Harms

Suspected oral cancer or its precursors (such as erythroplakia, due to its high risk for transformation to cancer) detected through examination require confirmation by tissue biopsy, which may lead to harms. Harms of treatment of screen-detected oral cancer and its potential precursors (leukoplakia and erythroplakia) may result from complications of surgery, radiotherapy, and chemotherapy. The natural history of screen-detected oral cancer is not well understood, and as a result, the harms from overdiagnosis and overtreatment are unknown.

Current Practice

In a 2008 survey of U.S. adults, 29.4% of those aged 18 years or older reported ever having an oral cancer examination in which a physician,

dentist, or other health professional pulled on their tongue or palpated their neck. It is unknown what percentage of these examinations were conducted by dentists rather than physicians or other health professionals. Adults aged 40 years or older are more likely to have ever had an examination than those aged 18 to 39 years, despite smoking status. Adults who are most at risk for oral cancer (current smokers aged ≥40 years) are less likely to have ever had an oral cancer examination than former smokers or adults who have never smoked.

Other Approaches to Prevention

The USPSTF recommends that clinicians screen all adults for tobacco use, recommend against tobacco use, and provide tobacco cessation interventions for those who use tobacco products. The USPSTF also recommends screening and behavioral counseling interventions in primary care settings to reduce alcohol misuse by adults.

Definitions:

What the U.S. Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

Grade	Grade Definitions	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be measured.	Read "Clinical Considerations" section of USPSTF Recommendation Statement (see the "Major Recommendations" field). If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

USPSTF Levels of Certainty Regarding Net Benefit

Definition: The USPSTF defines *certainty* as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as: • The number, size, or quality of individual studies • Inconsistency of findings across individual studies • Limited generalizability of findings to routine primary care practice; and • Lack of coherence in the chain of evidence

Level of Certainty	Description
	As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of: • The limited number or size of studies • Important flaws in study design or methods • Inconsistency of findings across individual studies • Gaps in the chain of evidence • Findings not generalizable to routine primary care practice; and • A lack of information on important health outcomes More information may allow an estimation of effects on health outcomes.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Oral cancer

Guideline Category

Prevention

Risk Assessment

Screening

Clinical Specialty

Family Practice

Internal Medicine

Oncology

Otolaryngology

Preventive Medicine

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

- To summarize the current U.S. Preventive Services Task Force (USPSTF) recommendations for the screening for oral cancer and the supporting scientific evidence
- To update the 2004 USPSTF recommendations on screening for oral cancer

Target Population

Asymptomatic adults aged 18 years or older who are seen by primary care providers

Interventions and Practices Considered

Screening for oral cancer with direct inspection and palpation of the oral cavity

Major Outcomes Considered

- Key Question 1: Does screening for oral cancer reduce morbidity and mortality?
- Key Question 2: What are the performance characteristics of the screening oral examination as a means of identifying oral cancer or potentially malignant disorders (PMDs) for oral cancer?

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): An evidence synthesis was prepared by the Kaiser Permanente Research Affiliates Evidence-based Practice Center, Kaiser Permanente Center for Health Research for the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Data Sources and Searches

The staff searched Ovid Medline for English-language articles published between January 2008 and July 11, 2011. Relevant studies from the previous USPSTF evidence review covering 1994 through 2001 are included, as are studies from a bridge search covering 2001 through 2008 (refer to Appendix A in the evidence synthesis for methods and search strategy). The current search strategy used MeSH terms and key word variations in the title or abstract to identify citations related to oral cancer, screening, and diagnostic accuracy (refer to Appendix B in the evidence synthesis [see the "Availability of Companion Documents" field]).

Study Selection

One investigator reviewed the citations retrieved at the title and abstract level, identifying possibly relevant articles. Two investigators independently reviewed citations identified at the full-text level. Disagreements were resolved by discussion and consultation with a third reviewer.

For Key Question (KQ) 1, studies were included if they were randomized controlled trials (RCTs), meta-analyses, or systematic reviews that

compared a screening test or combination of tests with no screening or usual care in adult populations (at least 80% of subjects were age 18 years or older) and reported morbidity or mortality outcomes. For KQ 2, studies were included if they compared a uniformly applied screening test for oral cancer with a reference standard (second examination, other test, or longitudinal follow-up) that was applied to all persons with positive screens and at least a sample of persons with negative screens. Relevant studies identified by previous USPSTF searches were carried forward to our review. Finally, the staff examined bibliographies of the articles retrieved for additional relevant studies.

Number of Source Documents

- Key Question 1: 1 study
- Key Question 2: 7 studies

Methods Used to Assess the Quality and Strength of the Evidence

Expert Consensus

Weighting According to a Rating Scheme (Scheme Not Given)

Rating Scheme for the Strength of the Evidence

Not stated

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Kaiser Permanente Research Affiliates Evidence-based Practice Center, Kaiser Permanente Center for Health Research for the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Data Extraction and Quality Assessment

A single investigator extracted study characteristics and results. A second investigator confirmed data. Two investigators rated the studies for internal validity using USPSTF criteria supplemented by standards from established criteria for assessing systematic reviews, randomized controlled trials (RCTs), or diagnostic accuracy. Per USPSTF methods, articles that were rated as having poor quality were excluded from further consideration.

Data Synthesis and Analysis

The staff described the evidence in text and tables by Key Question (KQ) and summarized it qualitatively. They did not synthesize the data quantitatively, since there was scant evidence for KQ 1 and the evidence for KQ 2 was too heterogeneous to pool. For KQ 2, sensitivity, specificity, positive predictive value, and negative predictive value were reported where possible.

Methods Used to Formulate the Recommendations

Balance Sheets

Expert Consensus

Description of Methods Used to Formulate the Recommendations

The U.S. Preventive Services Task Force (USPSTF) systematically reviews the evidence concerning both the benefits and harms of widespread implementation of a preventive service. It then assesses the certainty of the evidence and the magnitude of the benefits and harms. On the basis of this assessment, the USPSTF assigns a letter grade to each preventive service signifying its recommendation about provision of the service (see table below). An important, but often challenging, step is determining the balance between benefits and harms to estimate "net benefit" (that is, benefits minus harms).

Table 1. U.S. Preventive Services Task Force Recommendation Grid*

Certainty of Net Benefit	Magnitude of Net Benefit			
	Substantial	Moderate	Small	Zero/Negative
High	A	B	C	D
Moderate	B	B	C	D
Low	Insufficient			

**A, B, C, D,* and *I (Insufficient)* represent the letter grades of recommendation or statement of insufficient evidence assigned by the U.S. Preventive Services Task Force after assessing certainty and magnitude of net benefit of the service (see the "Rating Scheme for the Strength of the Recommendations" field).

The overarching question that the Task Force seeks to answer for every preventive service is whether evidence suggests that provision of the service would improve health outcomes if implemented in a general primary care population. For screening topics, this standard could be met by a large randomized, controlled trial (RCT) in a representative asymptomatic population with follow-up of all members of both the group "invited for screening" and the group "not invited for screening."

Direct RCT evidence about screening is often unavailable, so the Task Force considers indirect evidence. To guide its selection of indirect evidence, the Task Force constructs a "chain of evidence" within an analytic framework. For each key question, the body of pertinent literature is critically appraised, focusing on the following 6 questions:

1. Do the studies have the appropriate research design to answer the key question(s)?
2. To what extent are the existing studies of high quality? (i.e., what is the internal validity?)
3. To what extent are the results of the studies generalizable to the general U.S. primary care population and situation? (i.e., what is the external validity?)
4. How many studies have been conducted that address the key question(s)? How large are the studies? (i.e., what is the precision of the evidence?)
5. How consistent are the results of the studies?
6. Are there additional factors that assist the USPSTF in drawing conclusions (e.g., presence or absence of dose–response effects, fit within a biologic model)?

The next step in the Task Force process is to use the evidence from the key questions to assess whether there would be net benefit if the service were implemented. In 2001, the USPSTF published an article that documented its systematic processes of evidence evaluation and recommendation development. At that time, the Task Force's overall assessment of evidence was described as good, fair, or poor. The Task Force realized that this rating seemed to apply only to how well studies were conducted and did not fully capture all of the issues that go into an overall assessment of the evidence about net benefit. To avoid confusion, the Task Force has changed its terminology. Whereas individual study quality will continue to be characterized as good, fair, or poor, the term certainty will now be used to describe the Task Force's assessment of the overall body of evidence about net benefit of a preventive service and the likelihood that the assessment is correct. Certainty will be determined by considering all 6 questions listed above; the judgment about certainty will be described as high, moderate, or low.

In making its assessment of certainty about net benefit, the evaluation of the evidence from each key question plays a primary role. It is important to note that the Task Force makes recommendations for real-world medical practice in the United States and must determine to what extent the evidence for each key question—even evidence from screening RCTs or treatment RCTs—can be applied to the general primary care population. Frequently, studies are conducted in highly selected populations under special conditions. The Task Force must consider differences between the general primary care population and the populations studied in RCTs and make judgments about the likelihood of observing the same effect in actual practice.

It is also important to note that one of the key questions in the analytic framework refers to the potential harms of the preventive service. The Task Force considers the evidence about the benefits and harms of preventive services separately and equally. Data about harms are often obtained from observational studies because harms observed in RCTs may not be representative of those found in usual practice and because some harms are not completely measured and reported in RCTs.

Putting the body of evidence for all key questions together as a chain, the Task Force assesses the certainty of net benefit of a preventive service by asking the 6 major questions listed above. The Task Force would rate a body of convincing evidence about the benefits of a service that, for example, derives from several RCTs of screening in which the estimate of benefits can be generalized to the general primary care population as "high" certainty (see the "Rating Scheme for the Strength of Recommendations" field). The Task Force would rate a body of evidence that was not clearly applicable to general practice or has other defects in quality, research design, or consistency of studies as "moderate" certainty. Certainty is "low" when, for example, there are gaps in the evidence linking parts of the analytic framework, when evidence to determine the harms of treatment is unavailable, or when evidence about the benefits of treatment is insufficient. Table 4 in the methodology document listed below (see the "Availability of Companion Documents" field) summarizes the current terminology used by the Task Force to describe the critical assessment of evidence at all 3 levels: individual studies, key questions, and overall certainty of net benefit of the preventive service.

Sawaya GF et al. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. Ann Intern Med. 2007;147:871-875. [5 references].

I Statements

For I statements, the USPSTF has a new plan to commission its Evidence-based Practice Centers to collect information in 4 domains pertinent to clinical decisions about prevention and to report this information routinely. This plan is described in the paper: Petitti DB et al. Update on the methods of the U.S. Preventive Services Task Force: insufficient evidence. Ann Intern Med. 2009;150:199-205. www.annals.org

The first domain is potential preventable burden of suffering from the condition. When evidence is insufficient, provision of an intervention designed to prevent a serious condition (such as dementia) might be viewed more favorably than provision of a service designed to prevent a condition that does not cause as much suffering (such as rash). The USPSTF recognized that "burden of suffering" is subjective and involves judgment. In clinical settings, it should be informed by patient values and concerns.

The second domain is potential harm of the intervention. When evidence is insufficient, an intervention with a large potential for harm (such as major surgery) might be viewed less favorably than an intervention with a small potential for harm (such as advice to watch less television). The USPSTF again acknowledges the subjective nature and the difficulty of assessing potential harms: for example, how bad is a "mild" stroke?

The third domain is cost—not just monetary cost, but opportunity cost, in particular the amount of time a provider spends to provide the service, the amount of time the patient spends to partake of it, and the benefits that might derive from alternative uses of the time or money for patients, clinicians, or systems. Consideration of clinician time is especially important for preventive services with only insufficient evidence because providing them could "crowd out" provision of preventive services with proven value, services for conditions that require immediate action, or services more desired by the patient. For example, a decision to routinely inspect the skin could take up the time available to discuss smoking cessation, or to address an acute problem or a minor injury that the patient considers important.

The fourth domain is current practice. This domain was chosen because it is important to clinicians for at least 2 reasons. Clinicians justifiably fear that not doing something that is done on a widespread basis in the community may lead to litigation. More important, addressing patient expectations is a crucial part of the clinician–patient relationship in terms of building trust and developing a collaborative therapeutic relationship. The consequences of not providing a service that is neither widely available nor widely used are less serious than not providing a service accepted by the medical profession and thus expected by patients. Furthermore, ingrained care practices are difficult to change, and efforts should preferentially be directed to changing those practices for which the evidence to support change is compelling.

Although the reviewers did not explicitly recognize it when these domains were chosen, the domains all involve consideration of the potential consequences—for patients, clinicians, and systems—of providing or not providing a service. Others writing about medical decision making in the face of uncertainty have suggested that the consequences of action or inaction should play a prominent role in decisions.

Rating Scheme for the Strength of the Recommendations

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C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be measured.	Read "Clinical Considerations" section of USPSTF Recommendation Statement (see the "Major Recommendations" field). If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

USPSTF Levels of Certainty Regarding Net Benefit

Definition: The USPSTF defines *certainty* as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as: • The number, size, or quality of individual studies • Inconsistency of findings across individual studies • Limited generalizability of findings to routine primary care practice; and • Lack of coherence in the chain of evidence As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of: • The limited number or size of studies • Important flaws in study design or methods • Inconsistency of findings across individual studies • Gaps in the chain of evidence • Findings not generalizable to routine primary care practice; and • A lack of information on important health outcomes More information may allow an estimation of effects on health outcomes.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Comparison with Guidelines from Other Groups

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Peer Review. Before the U.S. Preventive Services Task Force (USPSTF) makes its final determinations about recommendations on a given preventive service, the Evidence-based Practice Center and the Agency for Healthcare Research and Quality send a draft evidence review to 4 to 6 external experts and to Federal agencies and professional and disease-based health organizations with interests in the topic. The experts are asked to examine the review critically for accuracy and completeness and to respond to a series of specific questions about the document. After assembling these external review comments and documenting the proposed response to key comments, the topic team presents this information to the USPSTF in memo form. In this way, the USPSTF can consider these external comments before it votes on its recommendations about the service. Draft recommendation statements are then circulated for comment among reviewers representing professional societies, voluntary organizations, and Federal agencies, as well as posted on the Task Force Web site for public comment. These comments are discussed before the final recommendations are confirmed.

Response to Public Comment. A draft version of this recommendation statement was posted for public comment on the USPSTF Web site from 9 April to 6 May 2013. In response to these comments, the USPSTF added additional language to the Rationale, Clinical Considerations, and discussion sections of the original guideline document to emphasize that the recommendation statement applies to primary care providers and not dental providers. Additional language was added throughout the recommendation statement to further define oral cancer and oropharyngeal cancer. Language addressing HPV vaccination and screening tools was added to the Research Needs and Gaps section of the original guideline document. Clarifying language about adjunct screening tools was added to the Accuracy of Screening Tests section of the original guideline document. Additional language was also added to describe the oral cavity examination in the Clinical Considerations section of the original guideline document.

Comparison with Guidelines from Other Groups. Recommendations for screening from the following groups were discussed: the American Academy of Family Physicians, the American Cancer Society, the American Dental Association.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Benefits of Detection and Early Treatment

The U.S. Preventive Services Task Force (USPSTF) found inadequate evidence that screening for oral cancer and treatment of screen-detected oral cancer improves morbidity or mortality.

Potential Harms

Harms of Detection and Early Treatment

The U.S. Preventive Services Task Force (USPSTF) found inadequate evidence on the harms of screening. No study reported on harms from the screening test or from false-positive or false-negative results. Potential diagnostic harms are primarily related to the harms of biopsy for suspected oral cancer or its potential precursors. Harms of treatment for screen-detected oral cancer and its potentially malignant precursors (leukoplakia and erythroplakia) may result from complications of surgery (first-line treatment), radiation, and chemotherapy. The natural history of screen-detected oral cancer or potentially malignant disorders is unclear; thus, the magnitude of overdiagnosis due to screening is unknown.

Qualifying Statements

Qualifying Statements

- The U.S. Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific clinical preventive services for patients without related signs or symptoms.
- It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.
- The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.
- Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.

Implementation of the Guideline

Description of Implementation Strategy

The experiences of the first and second U.S. Preventive Services Task Force (USPSTF), as well as that of other evidence-based guideline efforts, have highlighted the importance of identifying effective ways to implement clinical recommendations. Practice guidelines are relatively weak tools for changing clinical practice when used in isolation. To effect change, guidelines must be coupled with strategies to improve their acceptance and feasibility. Such strategies include enlisting the support of local opinion leaders, using reminder systems for clinicians and patients, adopting standing orders, and audit and feedback of information to clinicians about their compliance with recommended practice.

In the case of preventive services guidelines, implementation needs to go beyond traditional dissemination and promotion efforts to recognize the added patient and clinician barriers that affect preventive care. These include clinicians' ambivalence about whether preventive medicine is part of their job, the psychological and practical challenges that patients face in changing behaviors, lack of access to health care or of insurance coverage for preventive services for some patients, competing pressures within the context of shorter office visits, and the lack of organized systems in most practices to ensure the delivery of recommended preventive care.

Dissemination strategies have changed dramatically in this age of electronic information. While recognizing the continuing value of journals and other print formats for dissemination, the Agency for Healthcare Research and Quality will make all USPSTF products available through its Web site . The combination of electronic access and extensive material in the public domain should make it easier for a broad audience of users to access USPSTF materials and adapt them for their local needs. Online access to USPSTF products also opens up new possibilities for the appearance of the annual, pocket-size *Guide to Clinical Preventive Services*.

To be successful, approaches for implementing prevention have to be tailored to the local level and deal with the specific barriers at a given site, typically requiring the redesign of systems of care. Such a systems approach to prevention has had notable success in established staff-model health maintenance organizations, by addressing organization of care, emphasizing a philosophy of prevention, and altering the training and incentives for clinicians. Staff-model plans also benefit from integrated information systems that can track the use of needed services and generate automatic reminders aimed at patients and clinicians, some of the most consistently successful interventions. Information systems remain a major challenge for individual clinicians' offices, however, as well as for looser affiliations of practices in network-model managed care and independent

practice associations, where data on patient visits, referrals, and test results are not always centralized.

Implementation Tools

Foreign Language Translations

Mobile Device Resources

Patient Resources

Pocket Guide/Reference Cards

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

U.S. Preventive Services Task Force (USPSTF). Screening for oral cancer: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med. 2014 Jan 7;160(1):55-60. [17 references] PubMed

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

1996 (revised 2014 Jan 7)

Guideline Developer(s)

U.S. Preventive Services Task Force - Independent Expert Panel

Guideline Developer Comment

The U.S. Preventive Services Task Force (USPSTF) is a federally-appointed panel of independent experts. Conclusions of the USPSTF do not necessarily reflect policy of the U.S. Department of Health and Human Services (DHHS) or its agencies.

Source(s) of Funding

The U.S. Preventive Services Task Force (USPSTF) is an independent, voluntary body. The U.S. Congress mandates that the Agency for Healthcare Research and Quality support the operations of the USPSTF.

Guideline Committee

U.S. Preventive Services Task Force (USPSTF)

Composition of Group That Authored the Guideline

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**Members of the USPSTF at the time this recommendation was finalized. For a list of current Task Force members, go to http://www.uspreventiveservicestaskforce.org/Page/Name/our-members*.

Financial Disclosures/Conflicts of Interest

The U.S. Preventive Services Task Force (USPSTF) has an explicit policy concerning conflict of interest. All members disclose at each meeting if they have a significant financial, professional/business, or intellectual conflict for each topic being discussed. USPSTF members with conflicts may be recused from discussing or voting on recommendations about the topic in question.

Potential Conflicts of Interest: Dr. Moyer: Support for travel to meetings for the study or other purposes: Agency for Healthcare Research and Quality. Disclosure forms from USPSTF members can be viewed at https://www.acponline.org/authors/icmje/ConflictOfInterestForms.do?msNum=M13-1537.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: U.S. Preventive Services Task Force (USPSTF). Screening for oral cancer: recommendation statement. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2004 Feb. 4 p.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Electronic copies: Available from the Annals of Internal Medicine Web site.

Availability of Companion Documents

The following are available:

Evidence Review:

- Olson CM, Burda BU, Beil T, Whitlock EP. Screening for oral cancer: a targeted evidence update for the U.S. Preventive Services Task Force. Evidence Synthesis No. 102. AHRQ Publication No. 13-05186-EF-1. Rockville (MD): Agency for Healthcare Research and Quality; 2013 Apr. 37 p.

Electronic copies: Available from the U.S. Preventive Services Task Force (USPSTF) Web site.

Background Articles:

- Barton MB et al. How to read the new recommendation statement: methods update from the U.S. Preventive Services Task Force. Ann Intern Med 2007;147:123-127.
- Guirguis-Blake J et al. Current processes of the U.S. Preventive Services Task Force: refining evidence-based recommendation development. Ann Intern Med 2007;147:117-122.
- Sawaya GF et al. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. Ann Intern Med 2007;147:871-875.
- Petitti DB et al. Update on the methods of the U.S. Preventive Services Task Force: insufficient evidence. Ann Intern Med. 2009;150:199-205.

Electronic copies: Available from the USPSTF Web site.

The following are also available:

- Screening for oral cancer. Clinical summary of U.S. Preventive Services Task Force recommendation. 2014 Jan. 1 p. Electronic copies: Available from the USPSTF Web site.
- The guide to clinical preventive services, 2012. Recommendations of the U.S. Preventive Services Task Force. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2012. 128 p. Electronic copies available from the AHRQ Web site. See the related QualityTool summary on the Health Care Innovations Exchange Web site.

The Electronic Preventive Services Selector (ePSS) is an application designed to provide primary care clinicians and health care teams timely decision support regarding appropriate screening, counseling, and preventive services for their patients. It is based on the current, evidence-based recommendations of the USPSTF and can be searched by specific patient characteristics, such as age, sex, and selected behavioral risk factors.

Patient Resources

The following are available:

- Understanding task force recommendations: screening for oral cancer. Consumer fact sheet. 2013 Nov. 4 p. Electronic copies: Available in Portable Document Format (PDF) from the U.S. Preventive Services Task Force (USPSTF) Web site.
- Screening for oral cancer: U.S. Preventive Services Task Force recommendation statement. Summary for patients. Ann Intern Med. 2014 Jan 14;160(1):I-28. Electronic copies: Available from the Annals of Internal Medicine Web site.
- Women: stay healthy at any age. Rockville (MD): Agency for Healthcare Research and Quality. AHRQ Pub. No. 10-IP002-A. 2010 Aug. 2 p. Electronic copies: Available in PDF in English and Spanish from the AHRQ Web site. See the related QualityTool summary on the Health Care Innovations Exchange Web site.
- Men: stay healthy at any age. Rockville (MD): Agency for Healthcare Research and Quality. AHRQ Pub. No. 10-IP004-A. 2010 Aug. 2 p. Electronic copies: Available in PDF in English and Spanish from the AHRQ Web site. See the related QualityTool summary on the Health Care Innovations Exchange Web site.

Print copies: Available in English and Spanish from the Agency for Healthcare Research and Quality (AHRQ) Publications Clearinghouse. For more information, go to http://www.ahrq.gov/research/publications/index.html or call 1-800-358-9295 (U.S. only).

Myhealthfinder is a new tool that provides personalized recommendations for clinical preventive services specific to the user's age, gender, and

pregnancy status. It features evidence-based recommendations from the USPSTF and is available at www.healthfinder.gov .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This summary was completed by ECRI on June 30, 1998. The information was verified by the guideline developer on December 1, 1998. This summary was updated by ECRI on April 8, 2004. The updated information was verified by the guideline developer on April 22, 2004. This summary was updated by ECRI Institute on January 15, 2014. The updated information was verified by the guideline developer on January 22, 2014.

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